

REMARKS

The Application has been carefully reviewed in light of the Office Action mailed April 19, 2005. Claims 33, 35, 41, and 43 remain pending in this patent application. Claims 1-32, 34, 36-40, 42 and 44-68 have been withdrawn without prejudice. Claims 69-70 are being added. No new matter is being introduced. Reconsideration and allowance of all pending claims is respectfully requested in view of the following remarks.

Rejections Under 35 U.S.C. § 102:

Claims 33, 35, 41, and 43 stand rejected under 35 U.S.C. 102(b) as being anticipated over U.S. Patent No. 6,017,693 to Yates, III et al. ("Yates"). Reconsideration and favorable action are requested.

With regard to independent claim 33, Applicant's claimed invention is directed to a "method for processing mass spectrometry data ... comprising: receiving a request to perform an operation utilizing ... transformed data resulting from a transformation of raw data generated by a mass spectrometer, the transformed data having a *hierarchical data format for use at multiple resolutions*; ... producing a transformed dataset at the selected resolution ...; and performing the requested operation ... at the selected resolution ..."

Yates, III et al. ("Yates") is directed to a method for correlating a peptide fragment mass spectrum with amino acid sequences derived from a database. Sub-sequences of the sequences found on the database which define a peptide having a mass substantially equal to the mass of the peptide analyzed by a tandem mass spectrometer are identified as candidate sequences. The various predicted mass spectra are compared to the experimentally derived fragment spectrum using a closeness-of-fit measure, preferably calculated with a two-step process, including a calculation of a preliminary score and, for the highest-scoring predicted spectra, calculation of a correlation function.

The Office Action on page 4 suggests a definition of the term "hierarchical" as relating to the term "hierarchy which implies having a graded or ranked organization." In contrast, the

specification, as filed, defines “hierarchical data format” to mean “the data are transformed into a format that includes or stores increasingly higher resolutions in a nonredundant way.” Such a data format allows progressive retrieval with respect to resolution.

The words of a claim must be given their “plain meaning” unless they are defined in the specification, where “plain meaning” refers to the ordinary and customary meaning given to the term by those of ordinary skill in the art. MPEP 2111.01.

Applicant respectfully submits that the definition of “hierarchical data format” provided in the specification, and as understood in the art of signal processing using wavelets, for example, should be used to interpret the claims. A graded or ranked organization is produced using a sort function. There is no relation between “transformed data having a hierarchical data format” and data having a graded or ranked organization. The two data formats are simply non-analogous. By interpreting the claim language using Applicant’s definition, it is clear that Yates is limited to the same problems of conventional technology described in Applicant’s background section as filed, where conventional mass spectrometers are incapable of storing large volume of raw data for later recovery or post processing investigation of the data. In particular, Yates does not teach a method for transforming data into a format that stores the data in increasingly higher resolutions in a nonredundant way. More particularly, Yates does not teach a mass spectrometer that uses “transformed data resulting from a transformation of raw data generated by a mass spectrometer, the transformed data having a *hierarchical data format for use at multiple resolutions* ...” Accordingly, Applicant respectfully requests that the rejection of claim 33 under 35 U.S.C. 102(b) be withdrawn.

Claim 35 depends from independent claim 33 and should be allowable for at least the same reasons.

Independent claim 41 is a system claim having similar limitations as independent claim 33 (i.e., “transformed data having a *hierarchical data format for use at multiple resolutions*”). Accordingly, claim 41 should be allowable for at least the same reasons as claim 33.

Claim 43 depends from independent claim 41 and should be allowable for at least the same reasons.

New claims 69 and 70, which depend from independent claims 33 and 41, respectively, recite that the transformed data having a hierarchical data format utilizing a wavelet transform are generated using a wavelet transform. Yates does not teach or suggest using a wavelet transform for

generating transformed data having a hierarchical data format. Accordingly, dependent claims 69 and 70 should be considered allowable over Yates.



CONCLUSION

For at least the foregoing reasons, Applicant respectfully requests reconsideration and favorable action. If the Examiner feels a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicant stands ready to conduct such a conference at the convenience of the Examiner.

A fee of \$60.00 for a one-month extension is enclosed herewith. Applicant believes that no other fee is due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-2816 of Patton Boggs, L.L.P.

Respectfully submitted,

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